III.   CLAIM AMENDMENTS

1. (Currently Amended)   A method for tracking transitions in a bit stream of a signal, said method comprising the steps of:

taking a first sample of said bit stream at a first sampling point of a first sampling sequence,

taking a second sample of said bit stream at a second sampling point of said first sampling sequence, and

taking a third sample of said bit stream at a third sampling point of said first sampling sequence,

evaluating occurrence of at least one transition within at least one of a first and a second time period, wherein the first time period is defined by said first and said second sampling points, and the second time period is defined by said second and said third sampling points, ~~and~~

adjusting said second sampling point to be near to the point in time where transition occurred, and

tracking transitions in the bit stream by comparing bit values of the first, second, and third samples of the bit stream.

2. (Original)   The method of claim 1, wherein said second sampling point is adjusted to an earlier point in time, if transition or majority of transitions occurred in said first time period.

3. (Original)   The method of claim 1, wherein said second sampling point is adjusted to a later point in time, if transition or majority of transitions occurred in said second time period.

4. (Original)   The method of claim 1, wherein said second sampling point is adjusted regularly after a predetermined number of clocks or transitions of said bit stream.

5. (Original)   The method of claim 1, wherein said transitions occurred are evaluated continuously.

6. (Original)   The method of claim 1, wherein said transitions occurred are counted by at least one counter having a counting depth of at least one, in particular having a counting depth of more than 5, preferably between 10 and 1000.

7. (Original)   The method of claim 1, wherein said second sampling point is adjusted so that within said first time period a counted number of transitions in said bit stream is equal to a counted number of transitions within said second time period.

8. (Original)   The method of claim 1, wherein said second sampling point is adjusted by a variable delay time of a master clock signal, said master clock signal having preferably the same frequency as said bit stream.

9. (Original)   The method of claim 1, wherein said first sampling point is on or before an earliest transition of said bit stream within said first sampling sequence, and said third sampling point is on or after a latest transition of said bit stream within said first sampling sequence.

10. (Original)   The method of claim 1, wherein the number of transitions between said third sampling point of said first sampling sequence and a first sampling point of a second sampling sequence following said first sampling sequence is determined.

11. (Original)   The method of claim 1, wherein bits of said bit stream are extracted uniformly at said first sampling points of succeeding sampling sequences, or uniformly at said third sampling points of succeeding sampling sequences.

12. (Original)   The method of claim 1, wherein bits of said bit stream are extracted

5

uniformly at fourth sampling points of succeeding sampling sequences, said fourth sampling point is respectively between said third sampling point of said first sampling sequence and said first sampling point of a sampling sequence subsequent to said first sampling sequence.

13. (Original)   The method of claim 1, wherein information about a drift spectrum is extracted from recording transition tracking.

14. (Original)   The method of claim 1, wherein said signal is to be evaluated by comparison of bits extracted from said bit stream with a predetermined expected bit stream.

15. (Original)   A method for testing an electronic device, wherein said method for testing comprises said method for tracking transitions of claim 1, wherein said bit stream of said signal is an output signal of said electronic device, said output signal being a response on a predetermined input signal supplied to said electronic device.

16. (Original)   A software program or product, preferably stored on a data carrier, for executing the method of claim 1, when running on a data processing system such as a computer.

17. (Currently Amended)   A system for tracking transitions in a bit stream of a signal, said system comprising a sampling unit for

>taking a first sample of said bit stream at a first sampling point of a first sampling sequence,

>taking a second sample of said bit stream at a second sampling point of said first sampling sequence, and

>taking a third sample of said bit stream at a third sampling point of said first sampling sequence,

and evaluating occurrence of at least one transition within at least one of a first and a second time period, wherein the first time period is defined by said first and said second sampling points, and the second time period is defined by said second and said third sampling points,

~~and~~ an adjusting unit for

adjusting said second sampling point to be near to the point in time where transitions occurred,

and circuitry for

tracking transitions in the bit stream by comparing bit values of the first, second, and third samples of the bit stream.